TEMPERATURES OF CAMPUS AND MESA, MAY, 1908

	Campus, 5,420 ft.	Messa, 5,835 ft.
Monthly mean	51.5	54.1
Mean maximum	60.5	61.0
Mean daily range	23.2	19.5
Greatest daily range	39.0	36.0
Least daily range	0.0	2.0
Number of days having minimum 32 degrees or lower	5.0	2.0
Date of latest frost	May 21	May 5

For the table above the monthly mean was calculated by averaging the daily means obtained by the formula

(7 A.M. + 2 P.M. + 9 P.M. + 9 P.M.) ÷ 4 = *mean*.[1]

The mean temperature of the mesa station was 2.6 degrees higher than that of the campus; the mean maximum 0.5 degrees and the mean minimum 3.4 degrees higher. It will be noted that the greatest difference is in the mean minimum. The mean daily range is conspicuously less for the mesa than for the campus. To state the case briefly the mesa station has a milder climate than that of the campus; the daily range is less, the mean temperature greater; also for the present year, at least, killing frosts did not continue so late in the season.

The month of April was warmer than May, but in spite of this anomaly there were about the same differences between campus and mesa. An important point to notice, however, is that the mean maximum was higher at the campus station, 63.8 as against 61.6 on the mesa, but the mean minima show about the same differences as recorded for May. In April, therefore, the campus showed a much more severe climate than the mesa. Days were hotter, nights were cooler.

Hann states (p. 252) that "in calm weather the valleys are colder than the enclosing mountains, up to a certain height." In the observations made by the writer there was this difference, not only in calm weather but also in windy weather, indeed, nearly every night the mesa station showed the higher temperature.

Since the university campus is on the plains, while the mesa is part of the lower foothills, it may be said that the plains have a more severe climate than the lower foothills. The writer believes that this difference in climate is an important one in determining the limits of distribution of plants at the tension line between foothills and plains. This question will be discussed at length in an article soon to be published in the University of Colorado Studies by the present writer and Messrs. G. S. Dodds and W. W. Robbins.

[1] Hann, "Handbook of Climatology," Ward's translation, 1903, p. 7.

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SOCIETIES AND ACADEMIES

THE AMERICAN PHYSICAL SOCIETY

THE fall meeting of the Physical Society was held at Columbia University, New York City, on Saturday, October 24, 1908, with President Edw. L. Nichols in the chair.

The following papers were presented:

"Note on Spherical Aberration," W. S. Franklin.

"New Photometric Methods of Studying the Radiating Properties of Various Substances," Edward P. Hyde.

"Sparking Potentials in a Very High Vacuum," R. A. Millikan.

"Non-Newtonian Mechanics," Gilbert N. Lewis.

"The Definition of a Perfect Gas," A. G. Webster and M. A. Rosanoff.

"The Specific Heats of Gases and the Partition of Energy," W. P. Boynton. (By title.)

"The Distribution of Sound from the Megaphone," A. G. Webster.

"The Reflection of Sound by the Ground," A. G. Webster.

"Thermometric Lag in Calorimetry," Walter P. White. (By title.)

"The Electromagnetic Mass of a General Electric System," D. F. Comstock.

"A Study of Electric Wave Vibrators and Receivers," H. W. Webb.

"Note on a Method of Determining the Concentration of the Free Electrons in a Metal," O. W. Richardson.

"The Kinetic Energy of the Positive Ions emitted by Hot Bodies," F. C. Brown.

The next meeting of the society will be at Chicago on the Friday and Saturday following Thanksgiving.

ERNEST MERRITT,
Secretary